

IN THE CLAIMS:

1. (Currently Amended) An organic electroluminescence device comprising a pair of electrodes and a layer of an organic light emitting medium disposed between the pair of electrodes, wherein the layer of an organic light emitting medium comprises a mixed layer ~~comprising~~ consisting essentially of (A) at least one compound selected from hole transporting compounds and (B) at least one compound selected from electron transporting compounds in amounts such that a ratio of an amount of component (A) to an amount of component (B) is in a range of 8:92 to 92:8 44.4:55.6 and an energy gap of the hole transporting compound represented by E_{g1} and an energy gap of the electron transporting compound represented by E_{g2} satisfy a relation:

$$E_{g1} < E_{g2}.$$

2. (Currently Amended) An organic electroluminescence device according to Claim 1, wherein an ionization energy of the hole transporting compound represented by $IP1$ and an ionization

energy of the electron transporting compound represented by IP2 satisfy a relation:

$$IP1 \leq IP2.$$

3. (Currently Amended) An organic electroluminescence device according to Claim 2, wherein an electron affinity of the hole transporting compound represented by Af1 and an electron affinity of the electron transporting compound represented by Af2 satisfy a relation:

$$Af1 \leq Af2$$

and ΔE_v given by $\Delta E_v = IP2 - IP1$ and ΔE_c given by $\Delta E_c = Af2 - Af1$ satisfy a relation:

$$\Delta E_v \geq \Delta E_c.$$

4. (Currently Amended) An organic electroluminescence device according to Claim 2, wherein an electron affinity of the hole transporting compound represented by Af1 and an electron affinity of the electron transporting compound represented by Af2 satisfy a relation:

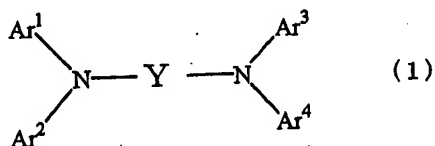
$$Af1 > Af2$$

and ΔE_v given by $\Delta E_v = IP_2 - IP_1$ and ΔE_c given by $\Delta E_c' = Af_1 - Af_2$ satisfy a relation:

$$\Delta E_v \geq \Delta E_c'.$$

5. (Original) An organic electroluminescence device according to Claim 1, wherein the hole transporting compound is an aromatic amine having condensed cyclic structures.

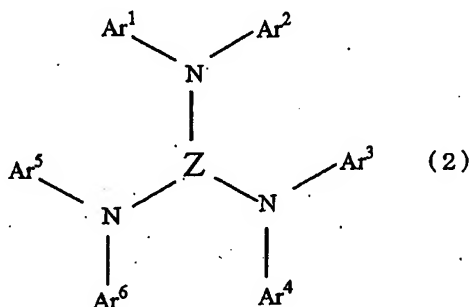
6. (Original) An organic electroluminescence device according to Claim 5, wherein the aromatic amine is represented by following general formula (1):



wherein Ar^1 to Ar^4 each independently represent a substituted or unsubstituted aromatic hydrocarbon group having 6 to 40 carbon atoms or a substituted or unsubstituted aromatic heterocyclic group having 3 to 40 carbon atoms, Y represents a substituted or unsubstituted aromatic residue group having 2 to 60 carbon

atoms, at least one of the groups represented by Ar^1 to Ar^4 and Y has a condensed cyclic group having 3 or more rings and a substituent in the groups represented by Ar^1 to Ar^4 and Y may form a ring with two groups selected from the groups represented by Ar^1 to Ar^4 and Y.

7. (Withdrawn) An organic electroluminescence device according to Claim 5, wherein the aromatic amine is represented by following general formula (2):



wherein Ar^1 to Ar^6 each independently represent a substituted or unsubstituted aromatic hydrocarbon group having 6 to 40 carbon atoms or a substituted or unsubstituted aromatic heterocyclic group having 3 to 40 carbon atoms, Z represents a substituted or

unsubstituted aromatic residue group having 3 to 60 carbon atoms, at least one of the groups represented by Ar^1 to Ar^6 and Z has a condensed cyclic group having 3 or more rings and a substituent in the groups represented by Ar^1 to Ar^6 and Z may form a ring with two groups selected from the groups represented by Ar^1 to Ar^6 and Z.

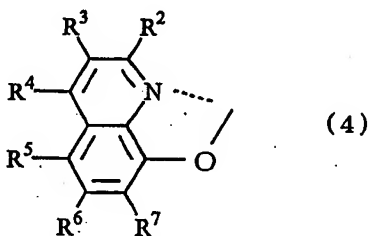
8. (Withdrawn) An organic electroluminescence device according to Claim 1, wherein the electron transporting compound is a heterocyclic compound having a nitrogen atom or a complex having a nitrogen atom.

9. (Withdrawn) An organic electroluminescence device according to Claim 8, wherein the complex having a nitrogen atom is represented by following general formula (3):



wherein M represents a monovalent to trivalent metal, A represents a ligand having a nitrogen atom, B represents a ligand having no nitrogen atoms, m represents an integer of 1 to 4, n represents an integer of 0 to 2 and integers represented by m and n satisfy $m+n \leq 4$.

10. (Withdrawn) An organic electroluminescence device according to Claim 9, wherein the ligand having a nitrogen atom is represented by following general formula (4):



wherein R² to R⁷ each independently represent hydrogen atom, a halogen atom, hydroxyl group, a substituted or unsubstituted amino group, nitro group, cyano group, a substituted or unsubstituted alkyl group having 1 to 30 carbon atoms, a substituted or unsubstituted alkenyl group having 2 to 30 carbon atoms, a substituted or unsubstituted cycloalkyl group having 5 to 30 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 30 carbon atoms, a substituted or unsubstituted aromatic hydrocarbon group having 6 to 40 carbon atoms, a substituted or unsubstituted aromatic heterocyclic group having 3 to 40 carbon atoms, a substituted or unsubstituted aralkyl

group having 7 to 40 carbon atoms, a substituted or unsubstituted aryloxy group having 6 to 40 carbon atoms, a substituted or unsubstituted alkoxycarbonyl group having 2 to 40 carbon atoms or carboxyl group and two groups selected from the groups represented by R^2 to R^7 may form a ring.

11. (Original) An organic electroluminescence device according to Claim 1, wherein the electron transporting compound is represented by following general formula (5):



wherein A^1 and A^2 each independently represent a substituted or unsubstituted monophenylanthryl group or a substituted or unsubstituted diphenylanthryl group and may represent a same group or different groups and L represents a single bond or a divalent bonding group; or by following general formula (6):



wherein An represents a substituted or unsubstituted anthracene residue group and A^3 and A^4 each independently represent a substituted or unsubstituted monovalent condensed aromatic cyclic group having 10 to 40 carbon atoms or a substituted or unsubstituted aryl group having no condensed cyclic structures

and having 12 to 40 carbon atoms and may represent a same group or different groups.

12. (Withdrawn) An organic electroluminescence device according to Claim 1, wherein the electron transporting compound is a cyclic derivative having Si.

13. (Original) An organic electroluminescence device according to Claim 1, wherein the mixed layer in the layer of an organic light emitting medium further comprises (C) a fluorescent compound.

14. (Original) An organic electroluminescence device according to Claim 13, wherein the layer of an organic light emitting medium comprises component (A), component (B) and component (C) in amounts such that a ratio of a total amount by weight of component (A) and component (B) to an amount by weight of component (C) is in a range of 100:1 to 10:1.

15. (Original) An organic electroluminescence device according to Claim 1, wherein a layer of a chalcogenide, a metal

halide or a metal oxide is disposed on a surface of at least one of the pair of electrodes.

16. (Original) An organic electroluminescence device according to Claim 1, wherein a mixed region of a reducing dopant and the electron transporting compound or a mixed region of an oxidizing dopant and the hole transporting compound is disposed on a surface of at least one of the pair of electrodes.

17. (Currently Amended) An organic electroluminescence device according to Claim 1, wherein a work function WF of an anode which injects holes into the layer of an organic light emitting medium and an ionization energy of the hole transporting compound IP1 satisfy a relation:

$$IP1-WF \leq 0.2\text{eV.}$$

18. (Currently Amended) An organic electroluminescence device comprising a pair of electrodes and a layer of an organic light emitting medium disposed between the pair of electrodes, wherein the layer of an organic light emitting medium comprises a mixed layer comprising consisting essentially of (A) at least

one compound selected from hole transporting compounds in amounts such that a ratio of an amount of component (A) to an amount of (B) is in a range of 8:92 to 44.4:55.6 and (B) at least one compound selected from electron transporting compounds and an energy gap of the hole transporting compound represented by E_{g1} and an energy gap of the electron transporting compound represented by E_{g2} satisfy a relation:

$$E_{g1} < E_{g2}$$

and holes are transported in the layer of an organic light emitting medium with the hole transporting compound.